



## IV. Health Status

### F. Communicable Diseases

Communicable diseases and infections discussed in this section (HIV / AIDS, gonorrhea, chlamydia, syphilis, hepatitis B and C, and tuberculosis) represent serious disease conditions and health disparities among racial and ethnic minority populations in Wisconsin. In particular, HIV and hepatitis C virus infections—with their associated morbidity, mortality, and demand for lifelong medical management and support—disproportionately affect minority populations.

Moreover, the occurrence of hepatitis B in Asian communities and multiple drug resistant tuberculosis in persons who are foreign-born add to the disparate burden of existing and emerging communicable diseases among racial and ethnic minorities.

Several health risk factors addressed in *Healthiest Wisconsin 2010* are significant in the prevention, occurrence, and management of sexually transmitted infections and other communicable diseases.

- High-risk sexual behavior places individuals at greater risk of unintended pregnancy or infections that create serious health, psychosocial, and economic burdens on individuals and communities.
- Individuals with limited access to primary care and preventive health services, as well as those with other resource limitations, face barriers to adequate immunization coverage. They are thus at greater risk of acquiring communicable diseases and developing serious health conditions associated with these diseases.
- Alcohol and other substance use places individuals at risk of serious communicable diseases such as HIV infection, other sexually transmitted infections, hepatitis C infection, endocarditis, sepsis, tuberculosis, and other conditions that are amplified by impairments associated with the abuse of or dependence on alcohol and other addictive substances.
- Social and economic factors that influence health, and health-related behaviors contribute to longstanding disparities in the health status of Wisconsin's population that include the occurrence of communicable diseases and insufficient protection against them.

### *HIV/AIDS*

Throughout the HIV / AIDS epidemic, racial / ethnic minority populations in Wisconsin have been disproportionately impacted by HIV infection. According to Census 2000, 12% of the Wisconsin population was classified as racial and ethnic minority—African Americans comprised 6% of the Wisconsin population and Hispanics were 4%. However, during 1996–2000, over 50% of all reported HIV infections in Wisconsin occurred in members of racial or ethnic minority groups.

The disproportionately high rates of reported HIV infection among African Americans, Hispanics, and American Indians have been accompanied by a disproportionately high burden of mortality due to AIDS / HIV in these groups. The proportion of deaths attributed to AIDS / HIV in Wisconsin during 1996–2000 that occurred in racial / ethnic minority populations was 44%, including African American, 34%, and Hispanic / Latino, 8%.<sup>1</sup>

## Reported Cases

- In Wisconsin, 46% of all reported HIV infections in males during 1996–2000 occurred in racial/ethnic minority populations including 35% in African American men and 9% in Hispanic men.
- During 1996–2000, the average annual rate of HIV infection in Wisconsin was substantially higher among African American men than any other population (Table 42). Among African American men, the rate was 10 times greater than the rate among white men. Among Hispanic men, the rate was 4 times greater than the rate among white men.
- In Wisconsin, the proportion of reported cases of HIV infection attributed to African Americans and Hispanics has increased over time. Prior to 1990, 25% of reported cases of HIV infection were among African Americans; between 1996 and 2000 this percentage was 39%. The percentage of cases among Hispanics/Latinos increased from 6% prior to 1990 to 9% between 1996 and 2000.

**Table 42: Reported cases of HIV infection by race/ethnicity and sex, Wisconsin, 1996–2000**

	Males			Females			Total		
	Cases	%	Rate	Cases	%	Rate	Cases	%	Rate
African American/Black	560	34.9%	76.1	224	54.4%	28.5	784	38.9%	51.5
American Indian	12	0.7%	10.2	13	3.2%	10.9	25	1.2%	10.6
Asian	15	0.9%	6.7	1	0.2%	0.4	16	0.8%	3.5
Hispanic/Latino	146	9.1%	27.9	44	10.7%	10.0	190	9.4%	19.7
White	871	54.3%	7.4	130	31.6%	1.1	1,001	49.7%	4.2
Total	1,604	100.0%	12.1	412	100.0%	3.0	2,016	100.0%	7.5

Source: Wisconsin Department of Health and Family Services, AIDS/HIV Program.

Note: Rate is average annual number per 100,000 population.

**Table 43: Cumulative AIDS and HIV infection cases by race/ethnicity and sex, Wisconsin, 1982–2000**

	Males				Females				Total			
	AIDS		HIV infection		AIDS		HIV infection		AIDS		HIV infection	
	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
African American/Black	1,030	25.1%	1,811	29.5%	234	42.5%	520	47.5%	1,264	27.1%	2,331	32.2%
American Indian	27	0.7%	42	0.7%	12	2.2%	27	2.5%	39	0.8%	69	1.0%
Asian	14	0.3%	28	0.5%	2	0.4%	5	0.5%	16	0.3%	33	0.5%
Hispanic/Latino	288	7.0%	427	6.9%	70	12.7%	131	12.0%	358	7.7%	558	7.7%
White	2,752	66.9%	3,829	62.3%	233	42.3%	408	37.3%	2,985	64.0%	4,237	58.5%
Unknown	0	0.0%	11	0.2%	0	0.0%	3	0.3%	0	0.0%	14	0.2%
Total	4,111	100.0%	6,148	100.0%	551	100.0%	1,094	100.0%	4,662	100.0%	7,242	100.0%

Source: Wisconsin Department of Health and Family Services, AIDS/HIV Program.

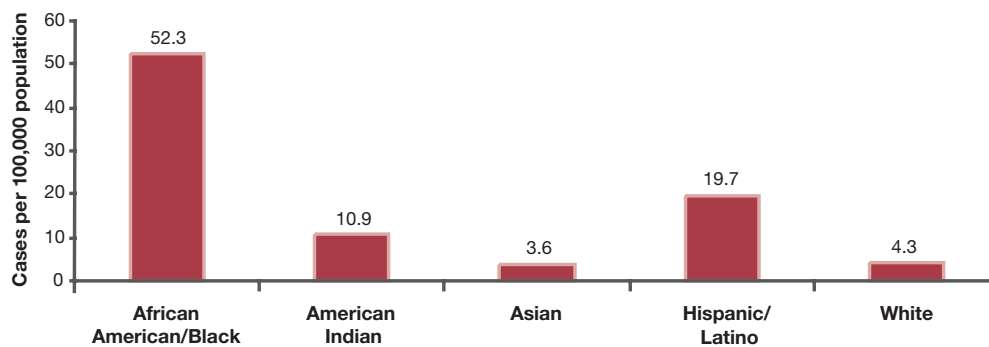
Note: Cases reported 1982 through December 31, 2000.

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### HIV Infection Rates

- During 1996–2000, the average annual rate of HIV infection was 11 times greater among African Americans, 6 times greater among Hispanics, and 3 times greater among American Indians compared to the rate among whites. These rates are not adjusted for differences in the age distributions of the groups.
- The rate within the Asian population was similar to that among whites.
- Some of the disparity in rates between minority populations and white populations may be due to differences in outreach, screening, and reporting that has influenced case detection.

**Figure 50: Average annual rates of reported HIV infection by race/ethnicity, Wisconsin, 1996–2000**



Source: Wisconsin Department of Health and Family Services, Division of Public Health, AIDS/HIV Program.

## HIV Risk Exposures

- While male-male sexual contact is the most frequently reported risk exposure for the total male population, racial/ethnic minority males are somewhat less likely to report this risk exposure, and more likely to report injection drug use and heterosexual contact compared to white males.
- For cases of HIV infection reported during 1996–2000 that had a documented risk exposure, men who have sex with men was the primary risk exposure for 62% of African American men and 56% of Hispanic men compared to 86% of white men.
- Injection drug use was the primary risk exposure reported by 25% of African American men and 34% of Hispanic men compared to 8% of white men.
- High-risk heterosexual contact was the primary risk exposure reported by 13% of African American men and 9% of Hispanic men compared to 3% of white men.
- Although the rates of reported HIV infection are generally higher among men than women, the racial/ethnic disparity is more pronounced among women. In Wisconsin, over two-thirds of all women with reported HIV infections during 1996–2000 were racial/ethnic minorities.
- African American women represented 54% of all women reported with HIV infection and Hispanic women represented 11%. Compared to the average annual rate of reported HIV infection among white women, the annual rate was 26 times greater among African American women and 9 times greater among Hispanic women.

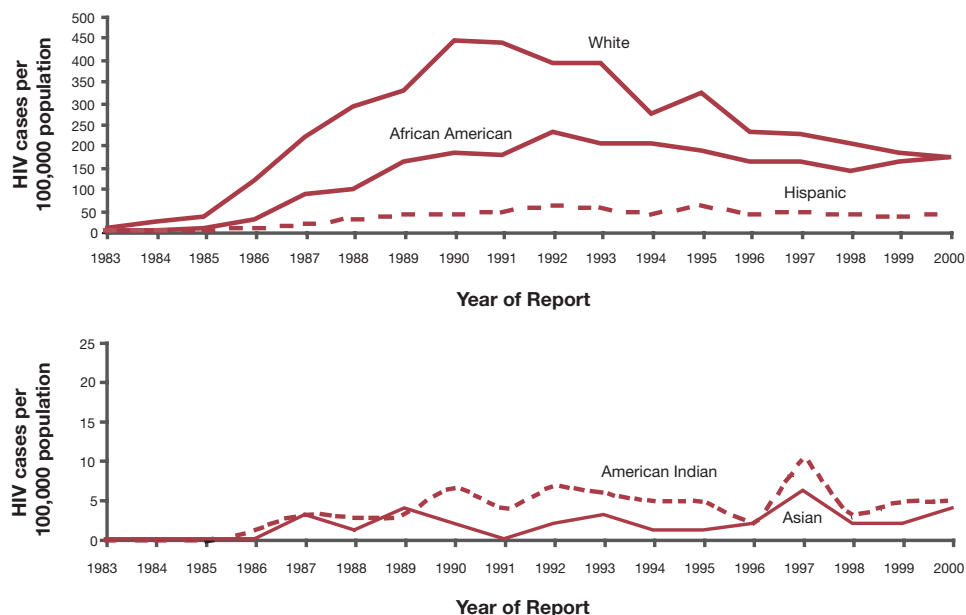
- High-risk heterosexual contact, and injection drug use are the most frequently reported risk-exposures for females of all racial/ethnic groups. For cases of HIV infection reported during 1996–2000 that had a documented risk exposure, high-risk heterosexual contact was the primary risk exposure reported by 74% of African American women, 82% of Hispanic women, and 71% of white women. Injection drug use was the primary risk exposure reported by 23% of African American women, 16% of Hispanic women, and 25% of white women.

## Trends in HIV Infection

- The decade of the 1990s marked a transition in the epidemic. During the 1990s, the annual number of reported cases reached a peak and then tended to decline for all racial/ethnic groups. However, this decline was smaller within minority populations than among whites. Comparing the average number of cases reported per year between 1991 and 1995 with the average number of cases reported per year between 1996 and 2000, cases declined 21% among African Americans, 23% among Hispanics, and 44% among whites.

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**Figure 51: HIV infection by race/ethnicity and year of report, Wisconsin, 1983–2000**



Source: Wisconsin Department of Health and Family Services, Division of Public Health, AIDS/HIV Program.

### *Sexually Transmitted Infections*

Annually, there are more sexually transmitted infections reported in Wisconsin than all other reportable communicable diseases combined. During 1996–2000 in Wisconsin, approximately 63% of the 35,000 case reports of notifiable communicable diseases involved sexually transmitted infections (more than 22,000).

Sexually transmitted infections disproportionately affect African American, adolescent, and young adult populations. Approximately 77% (more than 17,000 cases each year) of reported sexually transmitted infections in Wisconsin occur in racial/ethnic minority populations.

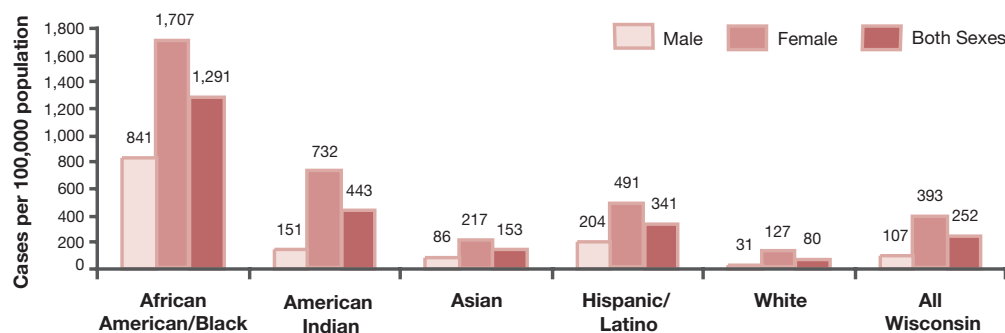
Among the notifiable sexually transmitted infections in Wisconsin, *Chlamydia trachomatis* infections (chlamydia) and *Neisseria gonorrhoeae* infections (gonorrhea) are the two most frequently reported among both males and females. Both chlamydia and gonorrhea infections cause internal inflammation and can facilitate the transmission of HIV infection, damage internal reproductive organs, and result in infertility and increased risks to a developing fetus. In women, chlamydia and gonorrhea infections may result in pelvic inflammatory disease, which is a major cause of infertility, ectopic pregnancy, and chronic pelvic pain. Screening programs are particularly important to detect asymptomatic infections and facilitate appropriate antibiotic treatment.

Reported rates of sexually transmitted infections among some minority racial/ethnic groups are higher when compared to rates among whites. Reporting from public sources (e.g., sexually transmitted disease clinics) is more complete than reporting from private sources. Therefore, differences in rates between minorities and whites may be influenced by this reporting bias. In addition, meaningful comparison of rates among racial groups is limited when profound screening and detection biases exist or where certain geographical regions and populations are screened more heavily than others. Thus, the number of reported cases of sexually transmitted infections and diseases are affected by many factors, only one of which is the occurrence of infection within a specific population.

## Chlamydia

- During 1996–2000, over 66,000 cases of chlamydia infection were reported in Wisconsin; 28% of the reported cases occurred in African Americans, 28% in whites, 2% in American Indians, 1% in Asians, 4% in Hispanics/Latinos, and 38% had unknown or other race or ethnicity (Table 44). Chlamydia infections are reported more frequently among females than among males; this may be due to women being more likely to seek reproductive healthcare than men.
- During 1996–2000, the reported rate of chlamydia infections among African American females in Wisconsin was 13 times higher than the rate among white females and 4 times higher than the reported rate among all females. Similarly, while chlamydia infections in males are under-detected in all populations, the reported chlamydia rate among African American males was 27 times higher than among white males and 8 times higher than the reported rate among all males.
- The highest rate of chlamydia infection was reported among African American females, at 1,707 per 100,000. This rate is over 4 times higher than among all females in the state and higher than the rates among other racial/ethnic females.
- Increases in reported rates of chlamydia infection in part represent the application of more sensitive diagnostic tests and expanded screening for new infections. However, many individuals at risk are still not being tested.

**Figure 52: Average annual rates of reported chlamydia infection by race/ethnicity, Wisconsin, 1996–2000**



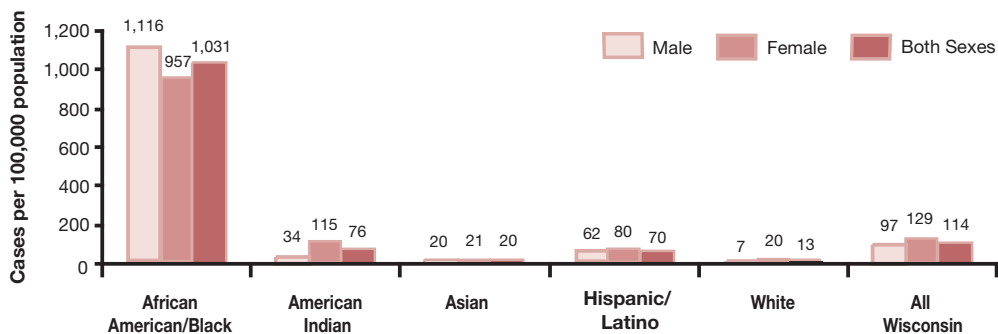
Source: Wisconsin Department of Health and Family Services, Division of Public Health, STD Program.

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### Gonorrhea

- During 1996–2000, a total of 29,879 cases of gonorrhea were reported in Wisconsin; approximately 50% of these cases occurred in African Americans, 11% in whites, 2% in Hispanics/Latinos, 1% in American Indians, and 0.3% in Asians. Thirty-seven percent of reported cases occurred in persons with unknown or other specified race or ethnicity (Table 44).
- The highest rate of gonorrhea was reported among African Americans (1,031 cases per 100,000), a rate 9 times higher than the total population rate.

**Figure 53: Average annual rates of reported gonorrhea by race/ethnicity, Wisconsin, 1996–2000**



Source: Wisconsin Department of Health and Family Services, Division of Public Health, STD Program.

**Table 44: Percent distribution of average annual sexually transmitted infections by race/ethnicity, Wisconsin, 1996–2000**

	Chlamydia		Gonorrhea		Syphilis	
	Average annual number of cases 1996–2000	% of total annual average cases 1996–2000	Average annual number of cases 1996–2000	% of total average annual cases 1996–2000	Average annual number of cases 1996–2000	% of total average annual cases 1996–2000
Race	Cases	%	Cases	%	Cases	%
African American/Black	3,715	28%	2,969	50%	232	78.6%
American Indian	195	2%	33	1%	1	0.3%
Asian	122	1%	16	0%	2	0.7%
Hispanic/Latino	491	4%	101	2%	14	4.7%
White	3,729	28%	631	11%	25	8.5%
Other/Unknown	4,980	38%	2,220	37%	21	7.1%
Total	13,232	100%*	5,976	100%*	295	100%*

Source: Wisconsin Department of Health and Family Services, Division of Public Health, STD Program.

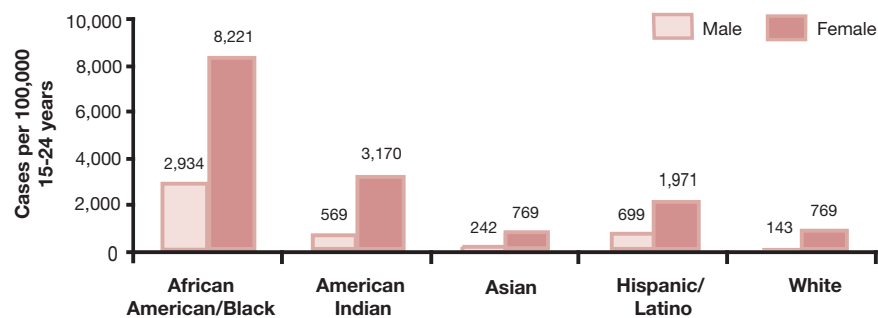
Note: \*Percentages may not add up exactly to 100 due to rounding.

## Sexually Transmitted Infections by Age

Age variation is highly relevant to providing sexually transmitted infection data and understanding the occurrence of these conditions in racial and ethnic minority populations. (See Appendix III, Table R38 for details on STD infection by race/ethnicity, age, and sex.)

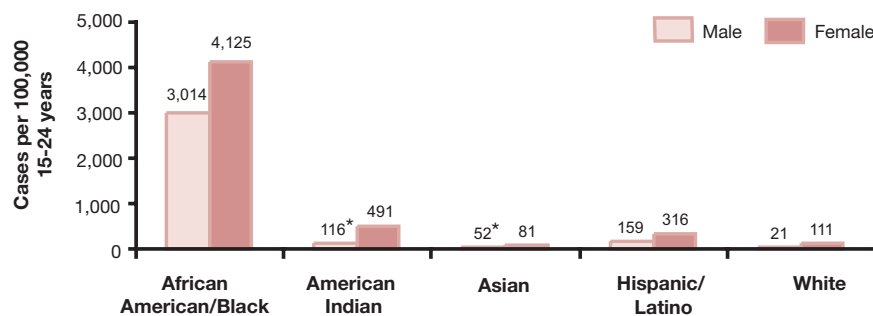
- In each racial/ethnic group, teens and young adults aged 15 to 24 years old had the highest rates of chlamydia, gonorrhea, and syphilis compared to sexually transmitted infections occurring at aged 0 to 14, 25 to 44, or 45+.
- African Americans had the highest reported rates of chlamydia and gonorrhea infections in all age groups compared to other racial/ethnic groups.

**Figure 54: Chlamydia infection by race/ethnicity and sex, ages 15 to 24, Wisconsin, 1996–2000**



Source: Wisconsin Department of Health and Family Services, Division of Public Health, STD Program.

**Figure 55: Gonorrhea infection by race/ethnicity and sex, ages 15 to 24, Wisconsin, 1996–2000**



Source: Wisconsin Department of Health and Family Services, Division of Public Health, STD Program.

Note: \*Rate is based on an annual average of fewer than 5 cases.



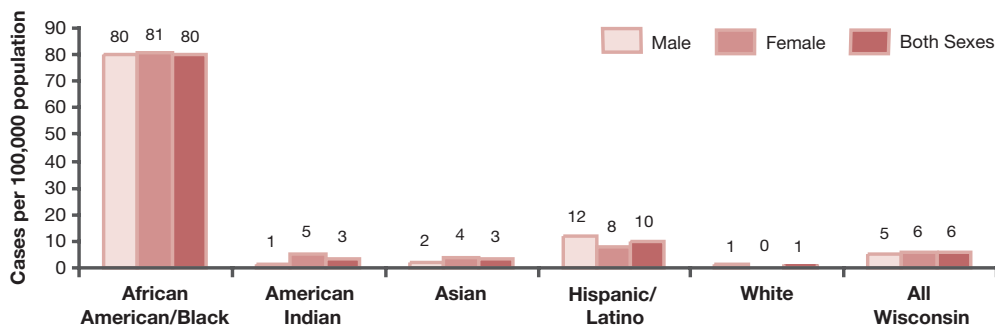
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### Syphilis

Syphilis is a bacterial, sexually transmitted disease that progresses in stages. The earliest stage is associated with a primary lesion (typically a genital ulcer). Secondary lesions involve the skin and mucous membranes. These early stages are the infectious stages. When untreated, syphilis becomes latent and is associated with late lesions and disease involvement of the skin, bone, central nervous system, and cardiovascular system. The bacteria that cause syphilis can cross the placenta and result in fetal loss or infant morbidity and mortality.

- During 1996–2000, 1,476 cases of syphilis were reported in Wisconsin; 79% of cases occurred in African Americans, 9% in whites, 5% in Hispanics/Latinos, 0.8% in Asians, and 0.4% in American Indians (Table 44).
- During 1996–2000, the rate of syphilis among African Americans (80 per 100,000) was the highest in the state and 8 times higher than the rate of syphilis among Hispanics/Latinos who had the second highest rate among minority populations. The cumulative reported rate for syphilis for whites from 1996–2000 was 1 per 100,000 population.
- Congenital syphilis disproportionately affects minority populations compared to other racial groups. However, since the early 1990s the numbers of cases have become relatively small. During 1996–2000, a total of 22 cases of congenital syphilis were reported in Wisconsin. Of these, 18 (82%) were reported among African Americans.
- From 1996 to 2000, reported syphilis cases in Wisconsin decreased by 67% (from 516 reported cases to 170 reported cases). The decline of syphilis infections in the African American population corresponds to the statewide decline. From 1996 to 2000, reported syphilis cases decreased by 64% (398 cases to 144 cases) among African Americans.
- Early syphilis continues to disproportionately impact the African American community in Wisconsin. For the calendar year 2001, 80% of all early syphilis infections were reported in the African American population for a case rate of 18 per 100,000. Sixty-one cases of early syphilis were reported in Milwaukee for calendar year 2001.

**Figure 56: Average annual rates of reported syphilis infection by race/ethnicity, Wisconsin, 1996–2000**



Source: Wisconsin Department of Health and Family Services, Division of Public Health, STD Program.

### *Hepatitis B*

Hepatitis B virus (HBV) infection is a common chronic bloodborne infection in the United States. In certain U.S. populations, such as Asians and Pacific Islanders, HBV infection is highly endemic due to the amount of circulating disease in the respective country of origin. Prior to the availability of hepatitis B vaccine, transmission of HBV often occurred perinatally between an infected mother and her newborn. Transmission also occurred through direct contact between an infected individual and other members of the household.

In Wisconsin, HBV infection has been a reportable disease since the early 1980s. The goal of surveillance for HBV infection in Wisconsin is to collect accurate, comprehensive, and useful data on HBV that will direct and support the prevention, education, and training activities of the Wisconsin Hepatitis B Program, local health departments, healthcare providers, and community organizations.

- During 1996–2000, 25% of hepatitis B cases were identified as Asian, 19% were identified as African American, and 19% were identified as white. Although racial minority populations only comprise 12% of the Wisconsin population, approximately half of all the hepatitis B cases during 1996–2000 occurred among racial minority populations in Wisconsin.
- The highest rate of reported hepatitis B virus infection between 1996 through 2000 occurred among Asians at a rate of 186 per 100,000 population. This rate is 17 times higher than the rate in the overall population. As noted above, most of these cases cannot be considered preventable because they were acquired in the country of origin before the availability of the hepatitis B vaccine.
- Of the 2,919 chronic and acute cases of hepatitis B infection reported between 1996 and 2000, 36% were reported without a race identified. Thus, Wisconsin HBV infection data by race is limited and generalizations regarding race are difficult. Minimum estimates can be made based upon the information that is available. HBV cases are not reported by ethnicity.

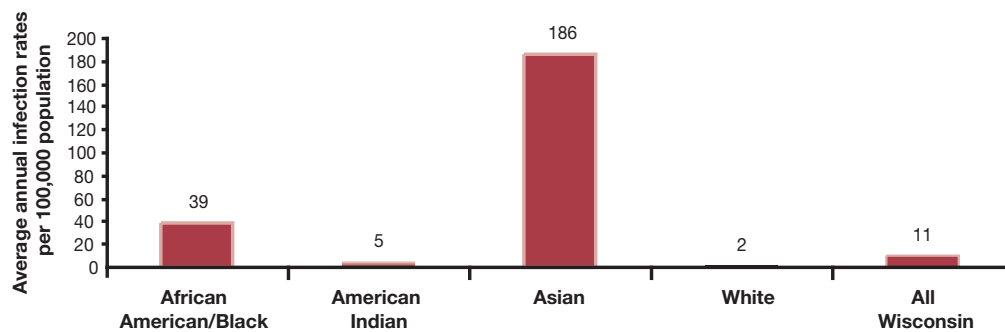
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**Table 45: Reported cases of hepatitis B virus infection by race and year of report, Wisconsin, 1996–2000**

	1996		1997		1998		1999		2000	
Race	No.	%	No.	%	No.	%	No.	%	No.	%
African American/Black	154	24%	140	23%	121	21%	87	16%	59	11%
American Indian	1	0%	2	0%	4	1%	3	1%	2	0%
Asian	152	24%	165	27%	123	21%	147	27%	152	28%
White	131	21%	113	18%	115	20%	95	17%	112	21%
Unknown	193	31%	196	32%	223	38%	212	39%	214	39%
Total	631	100%	616	100%	586	100%	544	100%	542	100%

Source: Wisconsin Department of Health and Family Services, Division of Public Health, Hepatitis B Program.

**Figure 57: Average annual rates of reported hepatitis B virus infection by race/ethnicity, Wisconsin, 1996–2000**



Source: Wisconsin Department of Health and Family Services, Division of Public Health, Hepatitis B Program.

## Hepatitis C

Hepatitis C is the most common chronic bloodborne infection in the United States. Since its identification in 1989, hepatitis C virus (HCV) infection has emerged as a major public health concern. An estimated 3.9 million persons nationwide have been infected with HCV. Studies suggest that 40% of chronic liver disease is HCV-related, resulting in an estimated 8,000 to 10,000 deaths each year. Current estimates of medical and work-loss costs of HCV-related acute and chronic liver disease are greater than \$600 million annually, and HCV-associated end-stage liver disease is the most frequent indication for liver transplantation among adults.

The primary method of HCV transmission is through the skin by direct exposure to blood. In the United States, the most common mode of HCV transmission is injection drug use. The factors associated with HCV infection include infection with HIV, a history of injection drug use, history of sex with injection drug users, receipt of clotting factors made before 1987, history of a blood transfusion before 1992, and a history of sexually transmitted diseases.

- Of the 12,222 Wisconsin cases reported between 1999 and 2002, 48% were reported without an identified race, and 59% were reported without an identified ethnicity. Therefore, generalizations regarding HCV infection by race and ethnicity are difficult. The HCV reporting practices of healthcare organizations and providers have improved since 1998 when the Wisconsin Division of Public Health specified reporting requirements for HCV infection.

**Table 46: Reported cases of hepatitis C virus infection by race/ethnicity and year of report, Wisconsin, 1999–2002**

	1999		2000		2001		2002	
Race	No.	%	No.	%	No.	%	No.	%
African American/Black	153	8%	250	10%	562	15%	610	15%
American Indian	13	1%	19	1%	35	1%	45	1%
Asian	6	0%	3	0%	18	0%	21	1%
White	591	32%	751	30%	1,405	38%	1,815	44%
Race Unknown	1,076	58%	1,481	59%	1,668	45%	1,672	40%
Total	1,849	100%	2,508	100%	3,693	100%	4,172	100%
Ethnicity	No.	%	No.	%	No.	%	No.	%
Hispanic/Latino	43	2%	58	2%	132	4%	122	3%
Non-Hispanic	590	32%	780	31%	1,495	40%	1,808	43%
Ethnicity Unknown	1,216	66%	1,670	67%	2,066	56%	2,238	54%
Total	1,849	100%	2,508	100%	3,693	100%	4,172	100%

Source: Wisconsin Department of Health and Family Services, Division of Public Health, Hepatitis C Program.

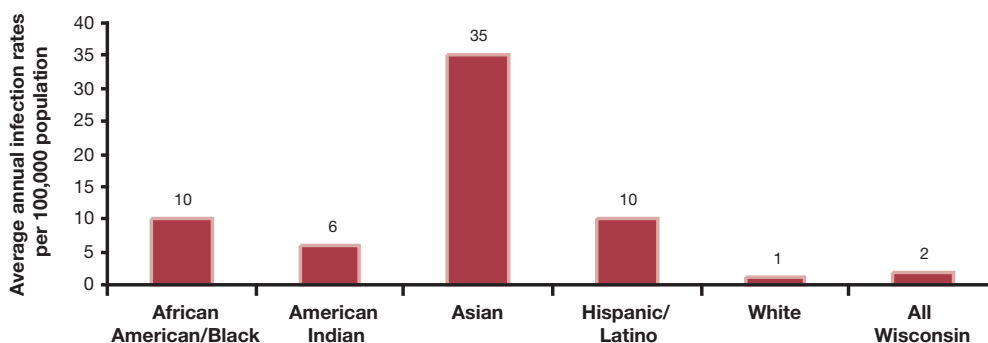
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### *Tuberculosis*

Active tuberculosis (TB) disease remains prevalent in many regions of the world; however, tuberculosis is less common in the United States. TB rates in the U.S. are related to immigration of persons from high-prevalence areas, HIV infection, and contact among high-risk individuals in confined spaces such as prisons.

- During 1996–2000, there were 555 cases of active TB disease reported in Wisconsin, an average annual number of 111 cases per year statewide during this 5-year period. Thirty-seven percent of the cases were among whites, 24% of the cases were among African Americans, 3% of the cases were among American Indians, 24% of the cases were among Asians, and 12% of the cases were identified as Hispanic.
- The rate of reported TB infection in Wisconsin was highest among Asians at 35 infections per 100,000 population compared to 10 per 100,000 in both African Americans and Hispanics/Latinos, and 6 per 100,000 in American Indians. The rate of TB in the Asian population was 35 times the rate of TB in the white population which had the lowest rate of TB at 1 reported case per 100,000 population.
- There has been a consistent increase in the proportion of TB cases occurring in foreign-born individuals during this 5-year period, from 31% in 1996 to 52% in 2000. Foreign-born individuals with TB disease during 1996–2000 originated from 49 different countries with half arriving from Laos, Mexico, and India. These three countries actually represent five distinct cultures: Laotian, Hmong, Hispanic/Latino, Tibetan, and Asian Indian. Other countries in Africa, Asia, Latin America, and Europe account for the remaining foreign-born cases.
- Wisconsin reports few cases of active TB in migrant agricultural workers. However, 12% of Wisconsin's TB cases during 1996–2000 were Hispanic/Latino, many of whom meet a broad definition of migrant, if defined as seasonal farm, cannery, meatpacking, factory workers, or individuals who previously had migrated seasonally to the area for work and have chosen to settle in the area.

**Figure 58: Average annual rates of reported tuberculosis infection by race/ethnicity, Wisconsin, 1996–2000**



Source: Wisconsin Department of Health and Family Services, Division of Public Health, Tuberculosis Program.

## Childhood Immunization

The public health system has achieved remarkable success in generally eliminating disparities in childhood immunization coverage for all racial and ethnic groups.

The Department of Health and Family Services, Divisions of Public Health and Health Care Financing have developed and implemented a statewide immunization registry to assist public and private healthcare providers track their patients to assure they stay current with the recommended immunization schedule. The Wisconsin Immunization Registry will centralize a child's immunization record regardless of where the shots were given.

A complete vaccination series for children 19 to 35 months old consists of 4 or more doses of diphtheria and tetanus toxoids and acellular pertussis vaccine (DtaP); 3 or more doses of oral poliovirus vaccine; 1 or more doses of a measles-containing vaccine such as MMR (measles, mumps, rubella); 3 or more doses of *Haemophilus influenzae* type b vaccine (Hib); and 3 hepatitis B vaccinations.

- Wisconsin ranks well compared to the national childhood immunization rates. In 2000 an average of 75% of children 19 to 35 months old had full coverage nationally compared to 80% coverage in Wisconsin.
- The Wisconsin childhood immunization coverage level data are taken from the National Immunization Survey. Data are not reported (NA) when the sample size is insufficient to make a reliable estimate of the coverage levels (e.g., for American Indians and Asians).

**Table 47: Estimated percentage of children with immunization coverage†, by race/ethnicity, ages 19–35 months, Wisconsin, 2002**

Vaccines	African American/ Black	American Indian	Asian	Hispanic/ Latino	White	All Wisconsin
	% (C.I. ± )			% (C.I. ± )	% (C.I. ± )	% (C.I. ± )
Full Coverage*	NA	NA	NA	NA	85.6% (±4.1)	80.3% (±4.3)
4+ DTP	NA	NA	NA	NA	90.5% (±3.5)	86.2% (±4.0)
3+ Polio	88.3% (±9.5)	NA	NA	NA	94.4% (±2.9)	92.1% (±3.2)
1+ MMR	89.9% (±7.8)	NA	NA	NA	94.1% (±2.6)	92.9% (±2.9)
3+ HIB	NA	NA	NA	92.4% (±8.2)	96.7% (±1.9)	94.5% (±2.2)
3+ Hep B	90.2% (±7.7)	NA	NA	92.3% (±8.1)	95.2% (±2.2)	93.3% (±2.2)

Source: Centers for Disease Control and Prevention, U.S. National Immunization Survey.

Notes: † Self-reported by respondent.

\*Full Coverage includes all of the following: 4DTP:3Polio:1MMR:3Hib:3HepB.

NA = (Not Available) if the unweighted sample size for the numerator was <30 or (CI half width) / Estimate >0.5 (CI half width) >10.

C.I. ± refers to the confidence interval range.

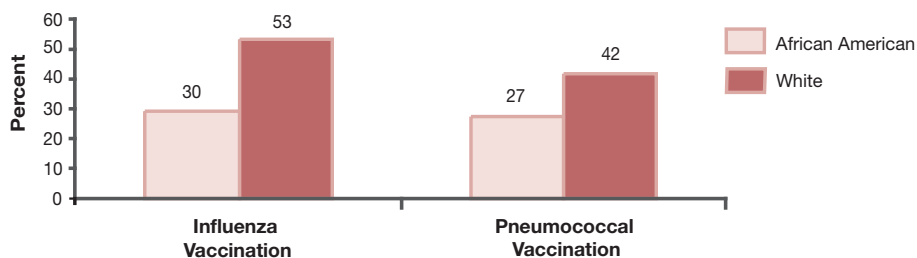
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### Adult Immunization

Influenza and pneumococcal diseases are key causes of mortality among adults 65 years of age or greater. Unlike the successes in childhood immunization, significant racial/ethnic disparities in recommended immunization coverage continue to exist among older adults. Approaches to reduce racial/ethnic disparities in adult immunization include increasing the demand for vaccination among racial/ethnic minority populations and using health management systems that promote vaccination.<sup>2</sup>

- In 2000, influenza vaccination coverage in the United States among adults 65 years of age and older was 67% for whites, 56% for Hispanics, and 48% for African Americans. Disparities for pneumococcal vaccination coverage were even wider, with 57% coverage among whites, 31% among African Americans, and 30% among Hispanics nationally.
- Although Medicare covers influenza and influenza vaccinations, significant racial and ethnic disparities in vaccine coverage persist. During the years 1999–2000, 30% of Wisconsin African Americans with Medicare received influenza vaccine compared to 53% of non-Hispanic white beneficiaries, and 27% of African Americans with Medicare received pneumococcal vaccine compared to 42% of white beneficiaries.

**Figure 59: Influenza and pneumococcal vaccination, Medicare beneficiaries by race, ages 65 years and older, Wisconsin, 1999–2000**



Source: Wisconsin Behavioral Risk Factor Surveillance System, 1999–2000, Wisconsin Department of Health and Family Services, Bureau of Health Information.

### Notes

1. Wisconsin AIDS/HIV Program.
2. Centers for Disease Control and Prevention. Racial/ethnic disparities in influenza and pneumococcal vaccination levels among persons aged ≥65 years—United States, 1989–2001. *MMWR*. 2003;52:958–962.